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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/652,325
Inventor(s)	:	Butsch, et al.
Filed	:	August 29, 2003
Art Unit	:	3724
Examiner	:	C. F. Dexter
Docket No.	:	9350
Confirmation No.	:	1633
Customer No.	:	27752
Title	:	METHOD AND APPARATUS FOR SEPARATING A
	:	WEB MATERIAL

DECLARATION UNDER 37 CFR §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Kevin Benson McNeil, declare as follows:

That, I received a Bachelor of Science degree in Mechanical Engineering from Michigan State University in March 1977;

That, since 1977, I have been an employee of The Procter & Gamble Company in Engineering – Converting Systems for Tissue/Towel Web Processes and Manufacturing Systems;

That, my present title is Technology Associate Director for The Procter & Gamble Company Family Care Engineering Division;

That, I am familiar with the subject matter of the above-identified Application and mechanical systems useful for the production of web materials;

That, I am familiar with the subject matter in McNeil, U.S. Patent No. 4,919,351 (the '351 reference);

That, I am familiar with the subject matter in Nystrand et al., U.S. Patent No. Re28,353 (the '353 reference);

That, the '351 reference is directed toward the separation of a web material at defined target lines of weakness by the use of parallel meshing blades. As shown in Fig. 3 of the '351 reference for example, 3 blades (31) affixed to the rotating bedroll (21) are indexed beyond the bedroll's surface at the correct time by means known in the art. Two mating blades (32) are affixed to a rotating chopper roll (23). The chopper roll is mounted within a rotating chopper roll carrier (26). The combination of the relative drive ratio between the bedroll, chopper roll carrier, and chopper roll, their direction of rotation, and relative size provides for a hypocycloidal motion with the desired overlap (i.e., depth of engagement) of the blades during mesh. This overlap stretches the sheet material causing the sheet to separate at a line of weakness which has been positioned within the blade mesh area. A key aspect of this invention is that both sets of blades remain parallel during engagement and also remain at matched circumferential speeds while in mesh. This facilitates deep blade engagement and correspondingly higher induced stretch of the sheet to allow reliable separation of the sheet at the line of weakness without the risk of blades clashing with each other anywhere throughout the meshing sequence. A relevant portion of an exemplary description of this process is provided in the '351 patent (column 5, lines 32-45):

> Additionally, chop-off-roll carrier 26 rotates counterclockwise at twice the angular rate of the bedroll's clockwise rotation; and chop-off roll 23 rotates clockwise on its axis at three times the angular of bedroll 21. Thus, spatially, chop-off roll 23 has the same angular rate of rotation as bedroll 21, and they rotate in the same direction. Therefore, because the mechanism is assembled so that blades 31 are parallel to blades 32 when assembled, they will continuously remain in parallel relation during the operation of the rewinder. Additionally, this geometry provides **substantially equal velocities to blades 31 and 32 as they move into and out of meshed relations**: i.e., execute a roll end, web breaking event. (Emphasis added)

An important point here is that the meshed **blades** of the '351 system remain at **matched circumferential velocities** while in mesh (engagement) even though the bedroll and chop-off roll they are affixed to may be driven at different angular velocities. The '351 system stretches the web by allowing deeper engagement (or overlap) mesh between the blades.

Contrastingly, the claims of the instant application differ significantly in that the web stretching is achieved by relative circumferential velocities between meshing blades. A relevant portion of the description is provided from the instant application (p. 5, ll 27-30):

> The circumferential velocity of the **blade tips** 142 and 242 are maintained at **different velocities** as the tips 142 and 242 pass through the gap 400. The differing blade tip velocities yield relative motion between the blade 140 and blades 240 as the blades mesh. This relative motion may be used to separate the web material 300 at a line of weakness 310. (Emphasis added)

Thus, it is my opinion that the approach of the cited '351 reference and the claims of the instant application to achieve localized stretch in a sheet material are grossly dissimilar. In fact, it would be difficult for one of skill in the art to understand how the technical approach of the '351 reference could be used to render any of the claims of the instant application obvious over the '351 reference cited by the Examiner. This is because **the blade pass frequencies of the bedroll blades and the chop-off roll blades of the instant application are distinct – those of the cited '351 reference are not**. Further, the '353 reference does nothing to remedy any of the defects cited above with regard to the '351 reference.

Further, Declarant sayeth naught.

This declaration is made with the knowledge that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed true, and further that willful false statements and the like are punishable by fine or imprisonment, or both under 18 USC §1001 and may jeopardize the validity of the application or any patent issuing thereon.

06 June 2007
Date

Kevin Benson McNeil, Declarant

18 US 1001 Whoever, in any matter within the jurisdiction or any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or advice a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.